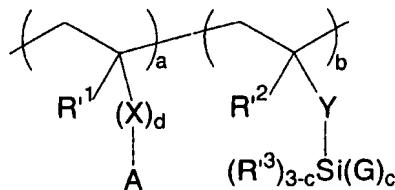


Amendments to the Claims:

This listing will replace all prior versions, and listing, of claims in the application:

Listing of Claims:

1. (Withdrawn) A polymer comprising structural units having the formula:



wherein:

A is a tertiary arylamine charge transport moiety;

X is a divalent bridging moiety;

Y is a divalent bridging moiety;

R'¹ and R'² are independently hydrogen or a C₁₋₄ alkyl;

G is independently a hydrolyzable group;

R'³ is independently a C₁₋₁₈ alkyl, a C₁₋₁₀ fluoroalkyl, or a C_{n-2} substituted or unsubstituted aryl;

c is an integer from 1 to 3;

d is 0 or 1;

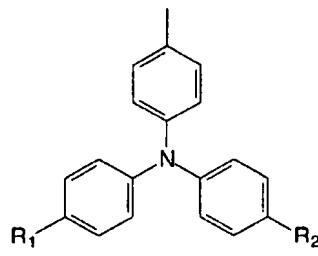
a is a mole fraction of from about 0.01 to about 0.99;

b is a mole fraction of from about 0.99 to about 0.01; and

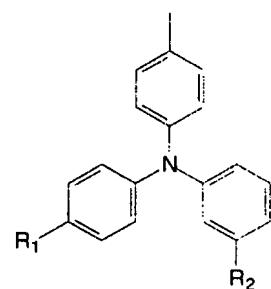
a + b is 1.00 or less.

2. (Withdrawn) The polymer of Claim 1 wherein the tertiary amine charge transport group has an oxidation potential of from about 0.6 to about 1.2 volts versus a standard calomel electrode.

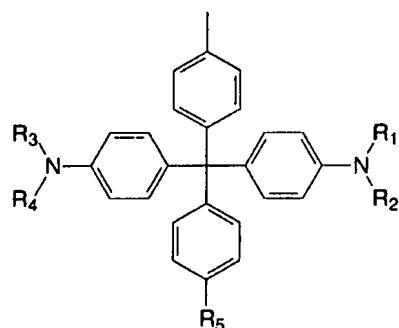
3. (Withdrawn) The polymer of Claim 1 wherein A is selected from the group consisting of:



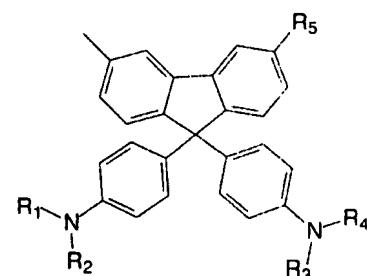
CTM I



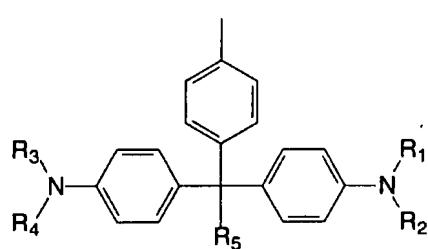
CTM II



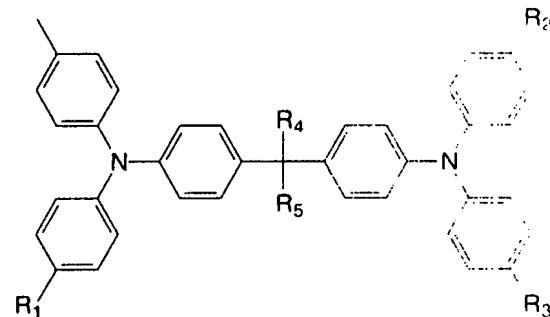
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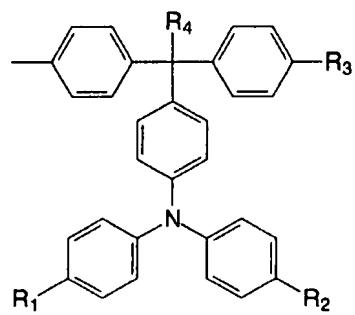
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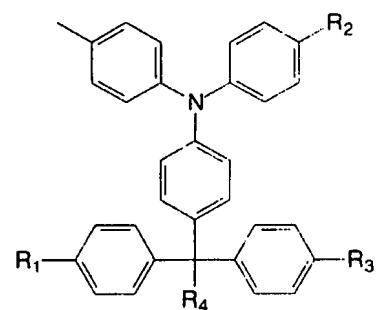
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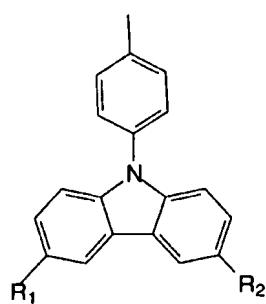
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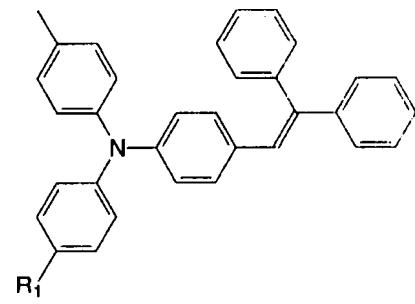
CTM VII



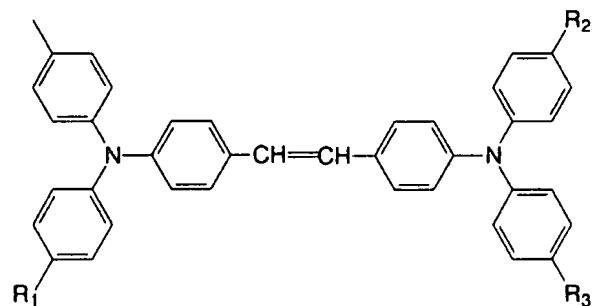
CTM VIII



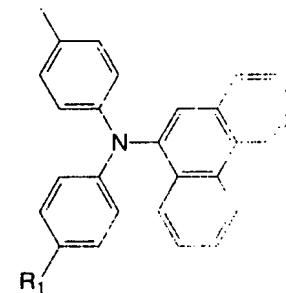
CTM IX



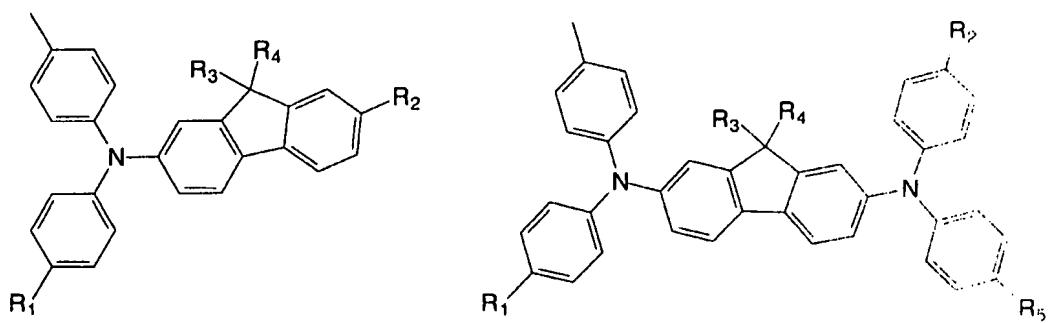
CTM X



CTM XI

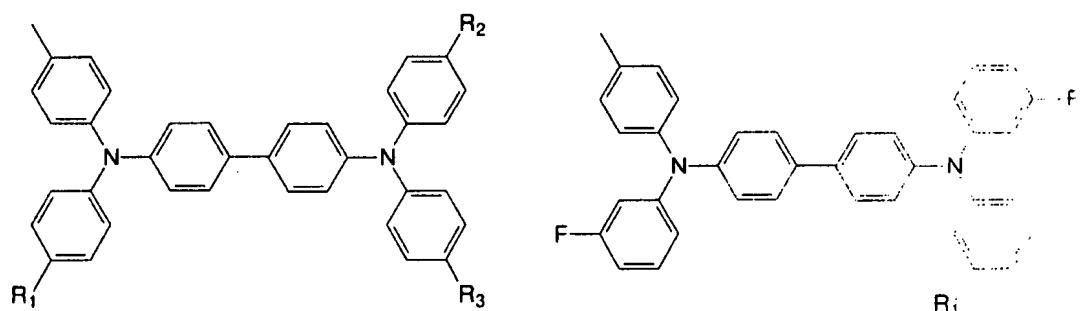


CTM XII



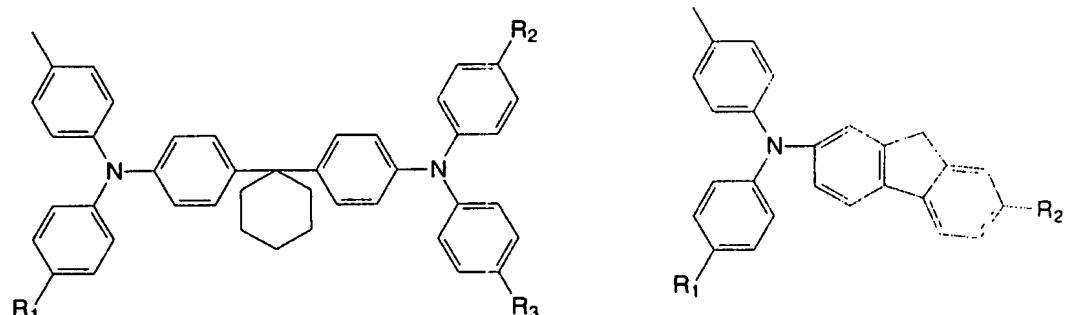
CTM XIII

CTM XIV



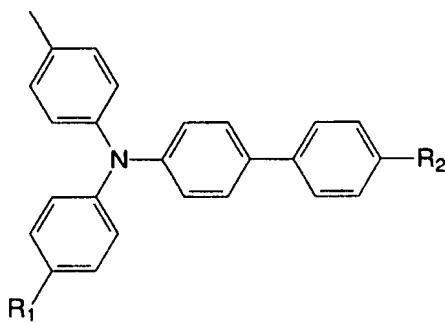
CTM XV

CTM XVI

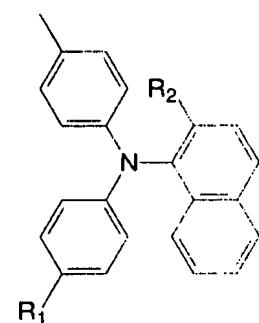


CTM XVII

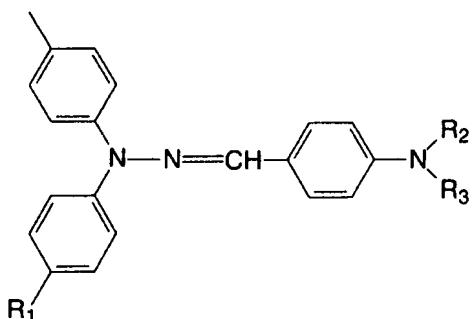
CTM XVIII



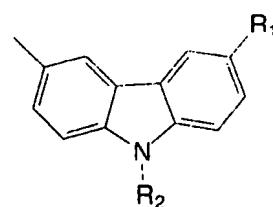
CTM XIX



CTM XX



CTM XXI



CTM XXII

wherein R₁, R₂, R₃, R₄ and R₅ are independently in each CTM structure selected from hydrogen, an alkyl group having 1 to about 6 carbon atoms, or an alkoxy group having 1 to about 6 carbon atoms.

4. (Withdrawn) The polymer of Claim 1 wherein d is 1.

5. (Withdrawn) The polymer of Claim 4 wherein X is selected from the group consisting of an ester residue -COO- or -OCO-; oxygen; an arylene moiety having up to about 18 carbon atoms; an alkylene moiety having up to about 6 carbon atoms; or combinations thereof.

6. (Withdrawn) The polymer of Claim 1 wherein Y is selected from the group consisting of an ester residue -COO- or -OCO-; oxygen; an arylene moiety having up to about 18 carbon atoms; an alkylene moiety having up to about 6 carbon atoms; or combinations thereof.

7. (Withdrawn) The polymer of Claim 1 wherein a is from about 0.1 to about 0.9.

8. (Withdrawn) The polymer of Claim 1 wherein a is from about 0.15 to about 0.85.

9. (Withdrawn) The polymer of Claim 1 wherein a is from about 0.25 to about 0.8.

10. (Withdrawn) The polymer of Claim 1 wherein c is 2.

11. (Withdrawn) The polymer of Claim 1 wherein c is 3.

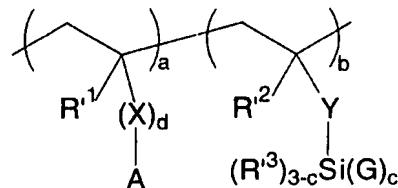
12. (Withdrawn) The polymer of Claim 1 wherein R¹ and R² are independently hydrogen or methyl.

13. (Withdrawn) The polymer of Claim 11 wherein G is methoxy.

14. Cancelled.

15. (Withdrawn) The polymer of Claim 1 wherein G is selected from halogen, hydroxyl, or C₁₋₆ alkoxy groups.

16. (Currently Amended) A silsesquioxane comprising the condensed reaction product of a charge transport polymer comprising structural units having the formula:



wherein:

A is a tertiary arylamine charge transport moiety;

X is a divalent bridging moiety;

Y is a divalent bridging moiety;

R'¹ and R'² are independently hydrogen or a C₁₋₄ alkyl;

G is independently a hydrolyzable group;

R'³ is independently a C₁₋₁₈ alkyl, a C₁₋₁₀ fluoroalkyl, or a C₆₋₁₂

substituted or unsubstituted aryl;

c is an integer from 1 to 3;

d is 0 or 1;

a is a mole fraction of from about 0.01 to about 0.99;

b is a mole fraction of from about 0.99 to about 0.01; and

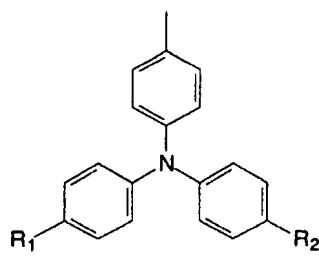
a + b is 1.00 or less, and

from about 5 to 30 weight percent of basic surface charge colloidal silica based on the weight of the ~~charge transport polymer~~ silsesquioxane, with optionally at least one additional silane monomer having at least one hydrolyzable group thereon.

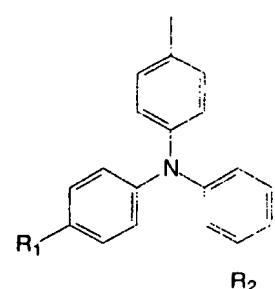
17. (Original) The silsesquioxane of Claim 16 wherein G is selected from halogen, hydroxyl, or C₁₋₆ alkoxy groups.

18. (Original) The silsesquioxane of Claim 16 wherein the tertiary amine charge transport group has an oxidation potential of from about 0.6 to about 1.2 volts versus a standard calomel electrode.

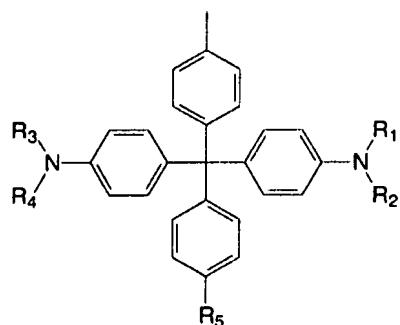
19. (Previously Presented) The silsesquioxane of Claim 16 wherein A is selected from the group consisting of:



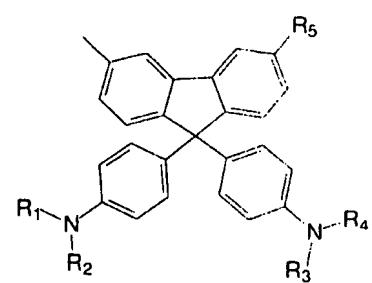
CTM I



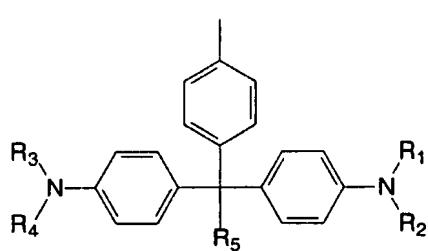
CTM II



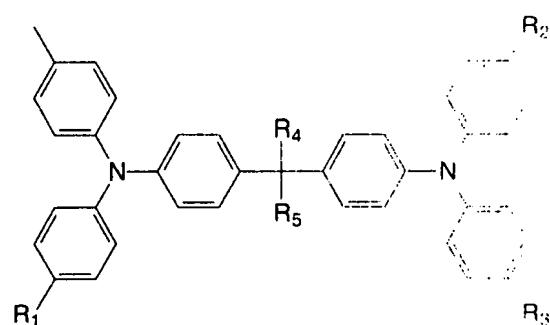
CTM III



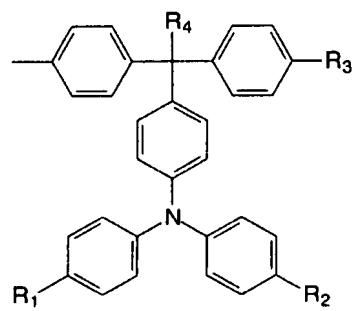
CTM IV



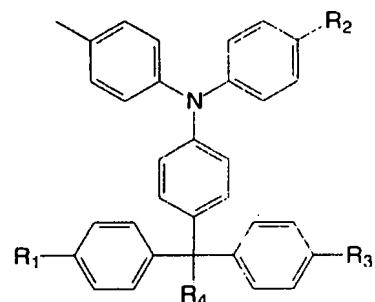
CTM V



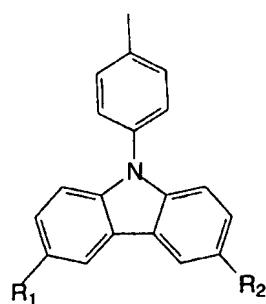
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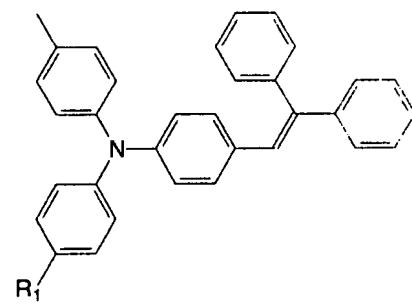
CTM VII



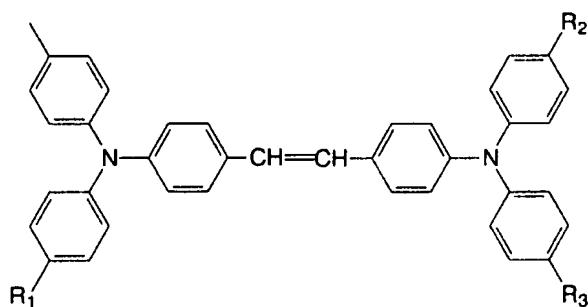
CTM VIII



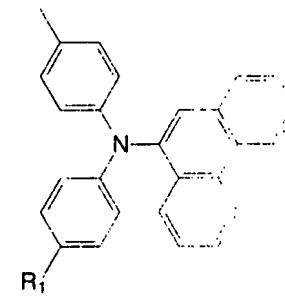
CTM IX



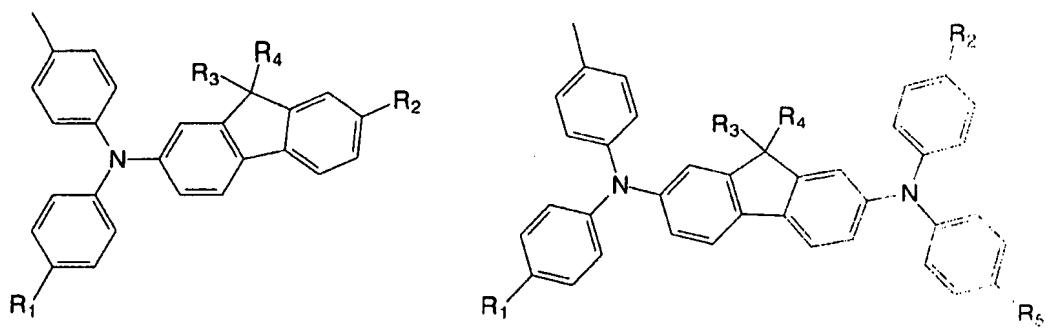
CTM X



CTM XI

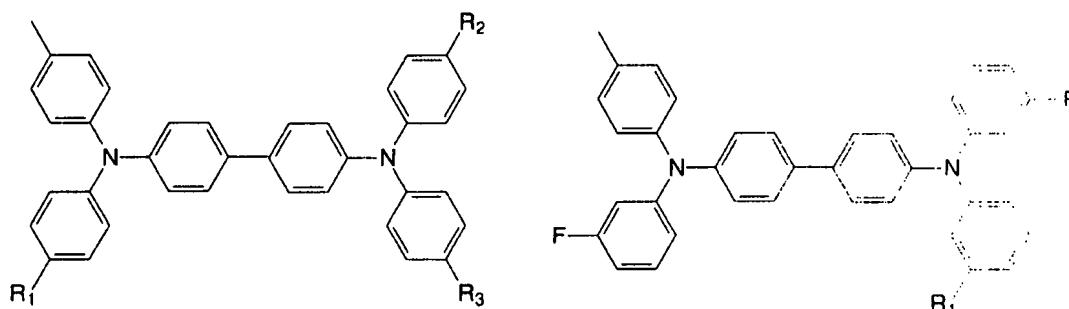


CTM XII



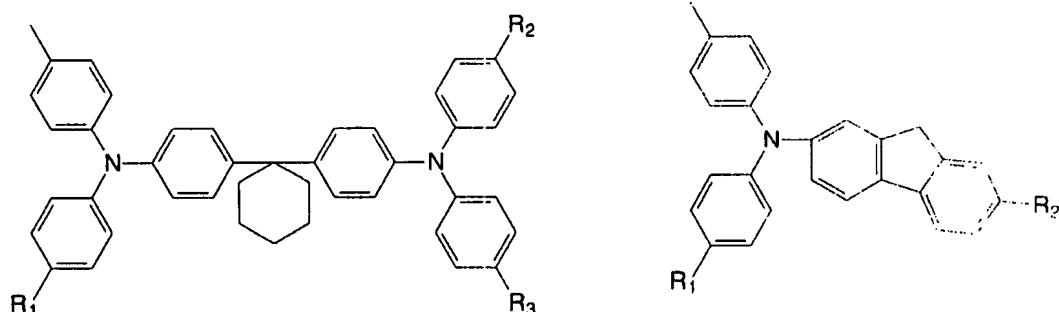
CTM XIII

CTM XIV



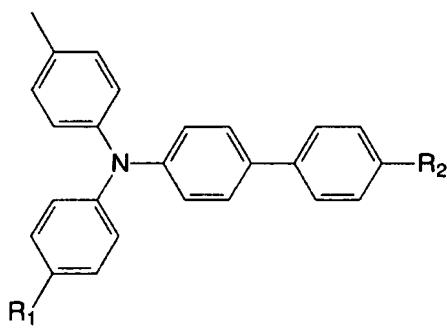
CTM XV

CTM XVI

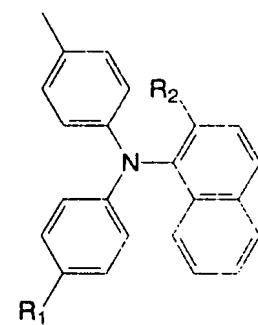


CTM XVII

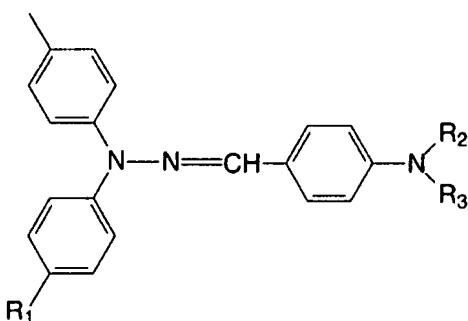
CTM XVIII



CTM XIX

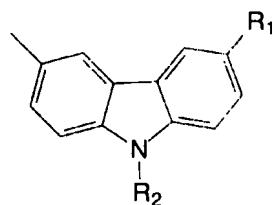


CTM XX



CTM XXI

and



CTM XXII

wherein R₁, R₂, R₃, R₄ and R₅ are independently in each CTM structure selected from hydrogen, an alkyl group having 1 to about 6 carbon atoms, or an alkoxy group having 1 to about 6 carbon atoms.

20. (Original) The silsesquioxane of Claim 16 wherein d is 1.

21. (Previously Presented) The silsesquioxane of Claim 20 wherein X is selected from the group consisting of an ester residue -COO- or -OCO-; oxygen; an arylene moiety having up to about 18 carbon atoms; an alkylene moiety having up to about 6 carbon atoms; and combinations thereof.

22. (Previously Presented) The silsesquioxane of Claim 16 wherein Y is selected from the group consisting of an ester residue -COO- or -OCO-; oxygen; an arylene moiety having up to about 18 carbon atoms; an alkylene moiety having up to about 6 carbon atoms; and combinations thereof.

23. (Original) The silsesquioxane of Claim 16 wherein a is from about 0.1 to about 0.9.

24. (Original) The silsesquioxane of Claim 16 wherein a is from about 0.15 to about 0.85.

25. (Original) The silsesquioxane of Claim 16 wherein a is from about 0.25 to about 0.8.

26. (Withdrawn) The silsesquioxane of Claim 16 wherein c is 2.

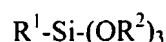
27. (Original) The silsesquioxane of Claim 16 wherein c is 3.

28. (Original) The silsesquioxane of Claim 16 wherein R¹ and R² are independently hydrogen or methyl.

29. (Original) The silsesquioxane of Claim 27 wherein G is methoxy.

30. (Original) The silsesquioxane of Claim 16 wherein the optional at least one additional silane monomer is present.

31. (Original) The silsesquioxane of Claim 30 wherein the at least one silane monomer is an alkyltrialkoxysilane corresponding to the formula:



wherein:

R¹ is an aliphatic, cycloaliphatic, or aromatic group containing 1 to about 12 carbon atoms, and

R² is an alkyl group containing 1 to about 6 carbon atoms.

32. (Previously Presented) The silsesquioxane of Claim 31 wherein R¹ is selected from the group consisting of alkyls containing up to about 18 carbon atoms, fluoroalkyl containing up to about 18 carbon atoms, cycloalkyl containing 5 to about 12 carbon atoms, and aryl containing 6 to about 12 carbon atoms.

33. (Original) The silsesquioxane of Claim 31 wherein R¹ is an alkyl group containing 1 to about 3 carbon atoms.

34. (Original) The silsesquioxane of Claim 31 wherein R¹ is a methyl group.

35. (Original) The silsesquioxane of Claim 30 wherein the at least one additional silane monomer is methyltrimethoxysilane.

36. (Original) The silsesquioxane of Claim 16 wherein the silsesquioxane is prepared in a polar solvent medium.

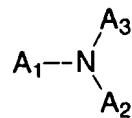
37. (Previously Presented) The silsesquioxane of Claim 36 wherein the polar solvent medium comprises water.

38. (Previously Presented) The silsesquioxane of Claim 37 wherein the polar solvent medium further comprises a water-miscible organic solvent.

39. (Original) The silsesquioxane of Claim 38 wherein said water-miscible organic solvent is selected from the group consisting of methanol, ethanol, isopropyl alcohol, methyl isobutyl ketone, and mixtures thereof.

40. (Withdrawn) A polymer comprising the polymerized reaction product of:

a) at least one vinyl-substituted, tertiary arylamine monomer having the general formula:



wherein:

A_1 , A_2 and A_3 are independently a C_{1-6} alkyl or C_{6-50} substituted or unsubstituted aryl group, with the proviso that at least one of A_1 , A_2 and A_3 is an aryl group substituted with a vinyl group having the formula $CH_2=C(R)-(X)_d-$.

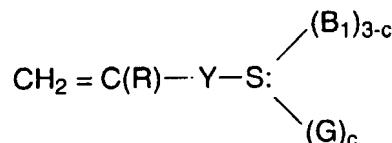
where:

R is hydrogen or a C_{1-4} alkyl;

X is a divalent bridging moiety; and

d is 0 or 1, with

b) at least one vinyl-substituted silane monomer having the formula:



wherein:

R is hydrogen or a C_{1-4} alkyl;

Y is a divalent bridging moiety;

B_1 is independently a C_{1-18} alkyl, a C_{1-10} fluoroalkyl, or a C_{6-12} substituted or unsubstituted aryl;

G is independently a hydrolyzable group; and

c is an integer from 1 to 3.

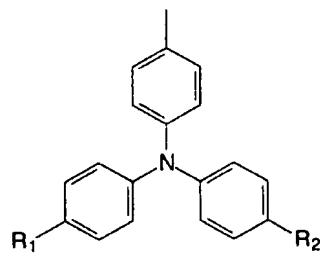
41. (Withdrawn) The polymer of Claim 40 wherein G is selected from halogen, hydroxyl, or C_{1-6} alkoxy groups.

42. (Withdrawn) The polymer of Claim 40 wherein d is 1.

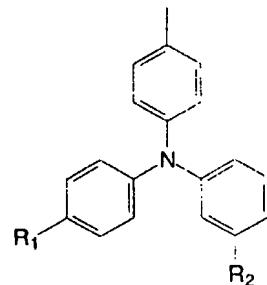
43. (Withdrawn) The polymer of Claim 42 wherein X is selected from the group consisting of an ester residue -COO- or -OCO-; oxygen; an arylene moiety having up to about 18 carbon atoms; an alkylene moiety having up to about 6 carbon atoms; or combinations thereof.

44. (Withdrawn) The polymer of Claim 40 wherein Y is selected from the group consisting of an ester residue -COO- or -OCO-; oxygen; an arylene moiety having up to about 18 carbon atoms; an alkylene moiety having up to about 6 carbon atoms; or combinations thereof.

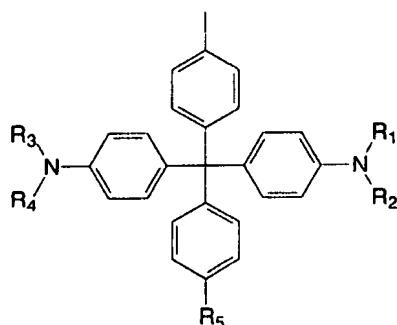
45. (Withdrawn) The polymer of Claim 40 wherein the vinyl-substituted tertiary aryl amine is selected from the group consisting of:



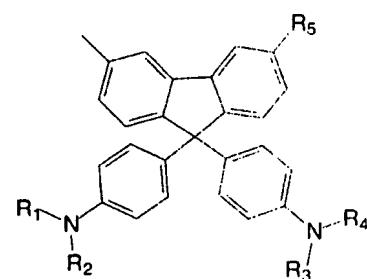
CTM I



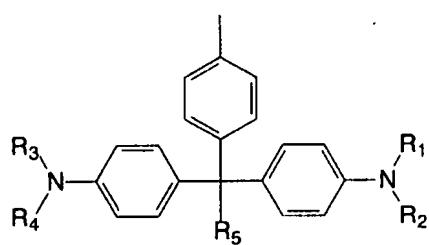
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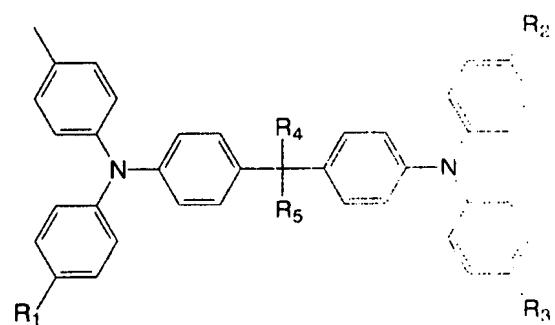
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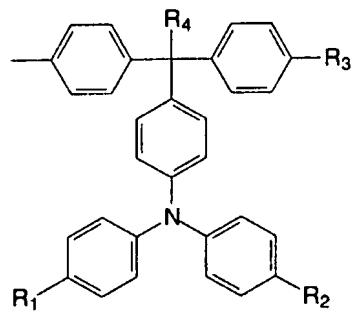
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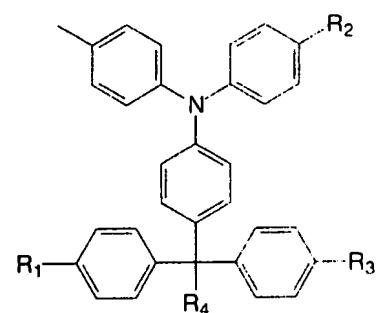
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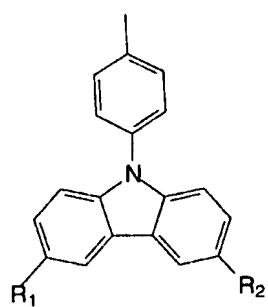
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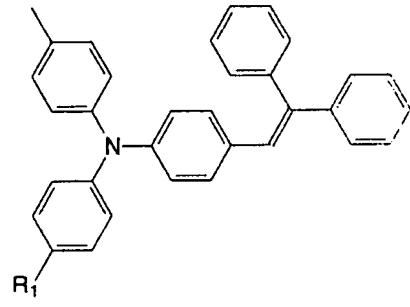
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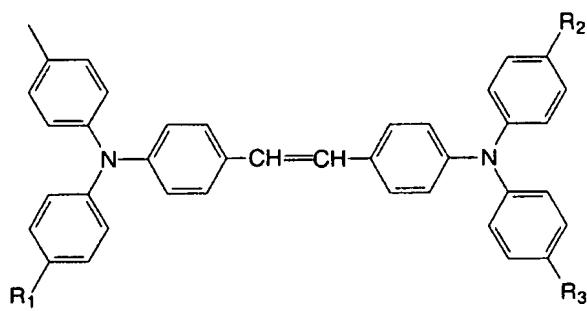
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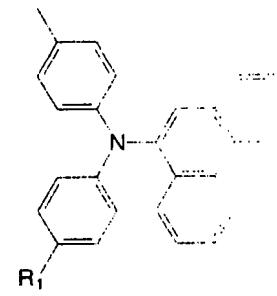
CTM IX



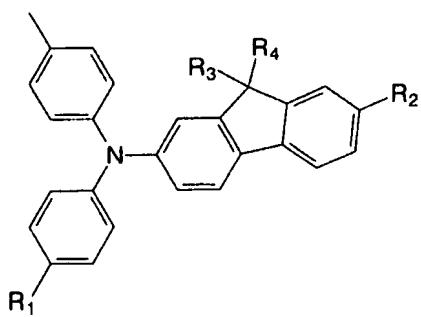
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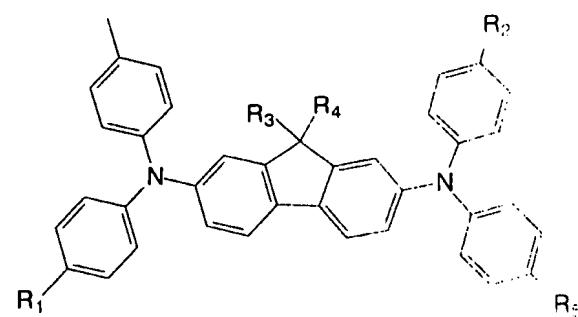
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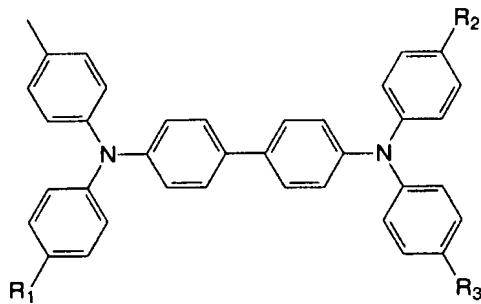
CTM XII



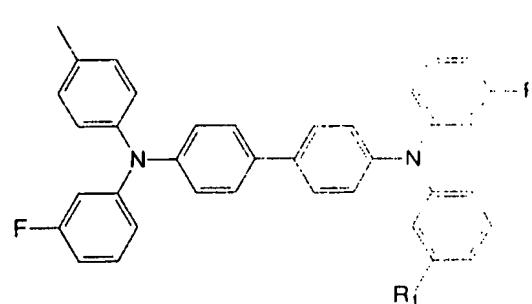
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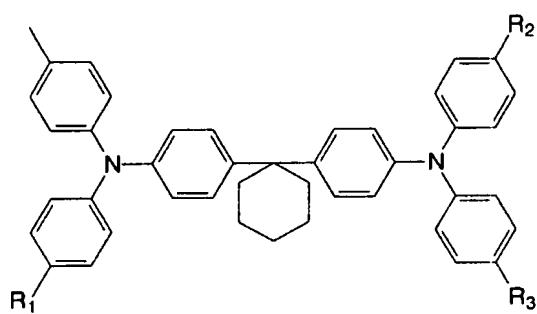
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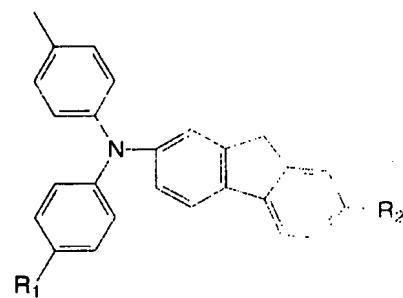
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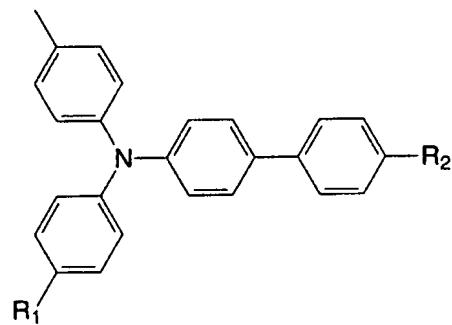
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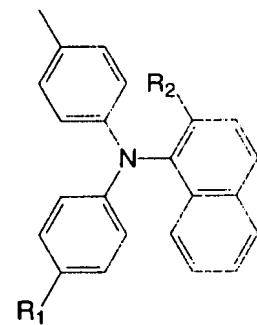
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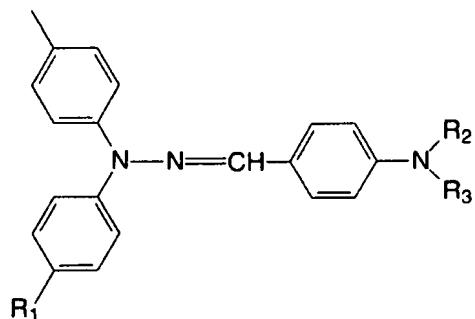
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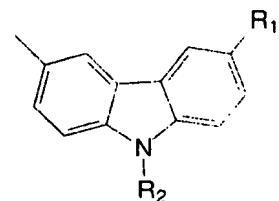
CTM XIX



CTM XX



CTM XXI



CTM XXII

and mixtures thereof, wherein R₁, R₂, R₃, R₄ and R₅ are independently in each CTM structure selected from hydrogen, an alkyl group having 1 to about 6 carbon atoms, or an alkoxy group having 1 to about 6 carbon atoms.

46. (Withdrawn) The polymer of Claim 40 wherein the amount of the at least one vinyl-substituted, tertiary arylamine monomer is from about 10 mol% to about 90 mol% based on total moles of the at least one vinyl-substituted, tertiary arylamine monomer and the at least one vinyl-substituted alkoxy silane monomer.

47. (Withdrawn) The polymer of Claim 40 wherein the amount of the at least one vinyl-substituted, tertiary arylamine monomer is from about 15 mol% to about 85 mol% based on total moles of the at least one vinyl-substituted, tertiary arylamine monomer and the at least one vinyl-substituted alkoxy silane monomer.

48. (Withdrawn) The polymer of Claim 40 wherein the amount of the at least one vinyl-substituted, tertiary arylamine monomer is from about 25 mol% to about 80 mol% based on total moles of the at least one vinyl-substituted, tertiary arylamine monomer and the at least one vinyl-substituted alkoxy silane monomer.

49. (Withdrawn) The polymer of Claim 40 wherein c is 2.

50. (Withdrawn) The polymer of Claim 40 wherein c is 3.

51. (Withdrawn) The polymer of Claim 40 wherein G is methoxy.

52. Cancelled.

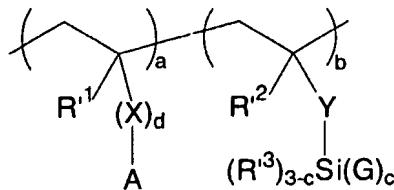
53. (Withdrawn) A polymer comprising the polymerized reaction product of at least one vinyl-substituted, tertiary arylamine monomer and at least one vinyl-substituted silane monomer.

54. (Currently Amended) An electrophotographic element comprising:
an electrically conducting layer;
a charge generating layer overlying said electrically conducting layer;

and

a first charge transport layer overlying said electrically conducting layer, said first charge transport layer comprising a silsesquioxane of the condensed

reaction product of a charge transport polymer comprising structural units having the formula:



wherein:

A is a tertiary arylamine charge transport moiety;

X is a divalent bridging moiety;

Y is a divalent bridging moiety;

R'1 and R'2 are independently hydrogen or a C₁₋₄ alkyl;

G is independently a hydrolyzable group;

R'3 is independently a C₁₋₁₈ alkyl, a C₁₋₁₀ fluoroalkyl, or a C₆₋₁₂ substituted or unsubstituted aryl;

c is an integer from 1 to 3;

d is 0 or 1;

a is a mole fraction of from about 0.01 to about 0.99;

b is a mole fraction of from about 0.99 to about 0.01; and

a + b is 1.00 or less, and

from about 5 to 30 weight percent of basic surface charge colloidal silica based on the weight of the ~~charge transport polymer silsesquioxane~~, with optionally at least one additional silane monomer having at least one functional group thereon.

55. (Original) The electrophotographic element of Claim 54 wherein G is selected from halogen, hydroxyl, or C₁₋₆ alkoxy groups.

56. (Original) The electrophotographic element of Claim 54 wherein the tertiary amine charge transport moiety has an oxidation potential of from about 0.6 to about 1.2 volts versus a standard calomel electrode.

57. (Original) The electrophotographic element of Claim 54 wherein d is 1.

58. (Previously Presented) The electrophotographic element of Claim 57 wherein X is selected from the group consisting of an ester residue -COO- or -OCO-; oxygen; an arylene moiety having up to about 18 carbon atoms; an alkylene moiety having up to about 6 carbon atoms; and combinations thereof.

59. (Previously Presented) The electrophotographic element of Claim 54 wherein Y is selected from the group consisting of an ester residue -COO- or -OCO-; oxygen; an arylene moiety having up to about 18 carbon atoms; an alkylene moiety having up to about 6 carbon atoms; and combinations thereof.

60. (Original) The electrophotographic element of Claim 54 wherein a is from about 0.1 to about 0.9.

61. (Original) The electrophotographic element of Claim 54 wherein a is from about 0.15 to about 0.85.

62. (Original) The electrophotographic element of Claim 54 wherein a is from about 0.25 to about 0.8.

63. (Withdrawn) The electrophotographic element of Claim 54 wherein c is 2.

64. (Original) The electrophotographic element of Claim 54 wherein c is 3.

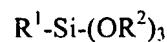
65. (Original) The electrophotographic element of Claim 54 wherein R¹ and R² are independently hydrogen or methyl.

66. (Original) The electrophotographic element of Claim 64 wherein G is methoxy.

67. (Original) The electrophotographic element of Claim 54 wherein the optional at least one silane monomer is present.

68. (Original) The electrophotographic element of Claim 67 wherein the at least one silane monomer is an alkyltrialkoxysilane.

69. (Previously Presented) The electrophotographic element of Claim 67 wherein the at least one silane monomer is at least one alkyltrialkoxysilane corresponding to the formula:



wherein

R^1 is an aliphatic, cycloaliphatic, or aromatic group containing up to about 18 carbon atoms, and

R^2 is an alkyl group containing 1 to about 6 carbon atoms.

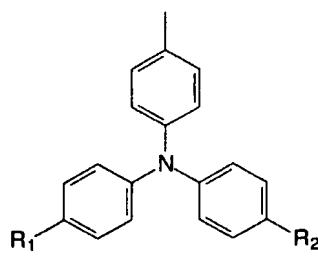
70. (Previously Presented) The electrophotographic element of Claim 69 wherein R^1 is selected from the group consisting of alkyls containing up to about 18 carbon atoms, fluoroalkyl containing up to about 18 carbon atoms, cycloalkyl containing 5 to about 12 carbon atoms, and aryl containing 6 to about 12 carbon atoms.

71. (Original) The electrophotographic element of Claim 69 wherein R^1 is an alkyl group containing 1 to about 3 carbon atoms.

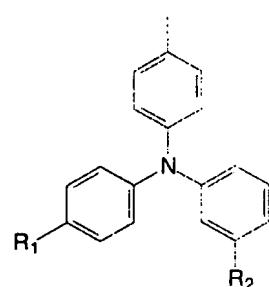
72. (Original) The electrophotographic element of Claim 69 wherein R^1 is a methyl group.

73. (Original) The electrophotographic element of Claim 67 wherein the at least one silane monomer is methyltrimethoxysilane.

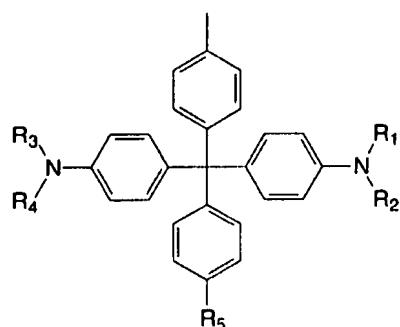
74. (Previously Presented) The electrophotographic element of Claim 54 wherein A is selected from the group consisting of:



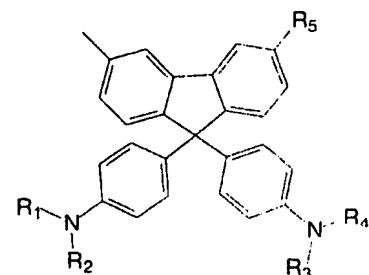
CTM I



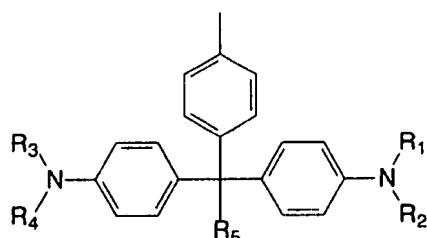
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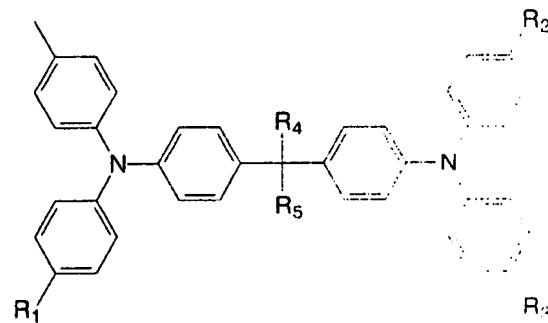
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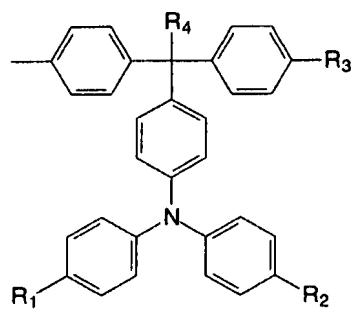
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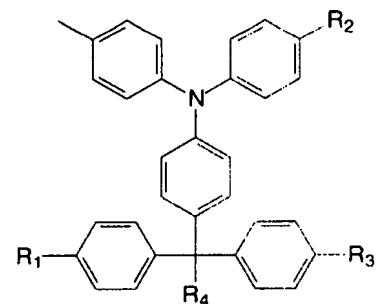
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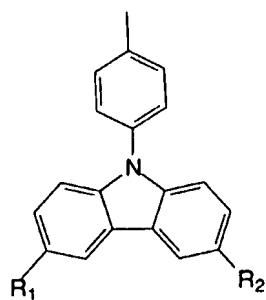
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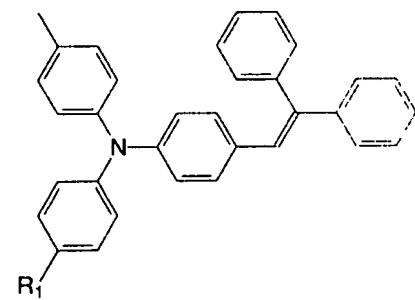
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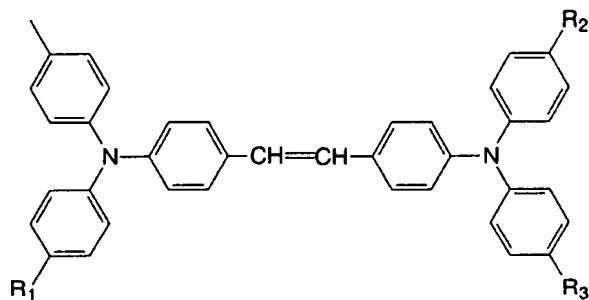
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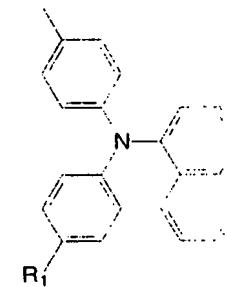
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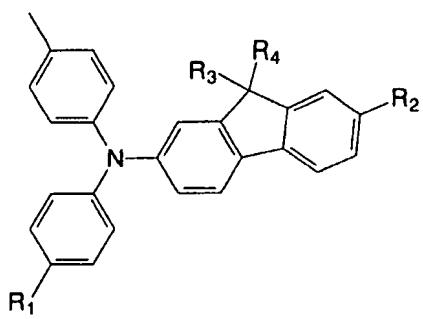
CTM X



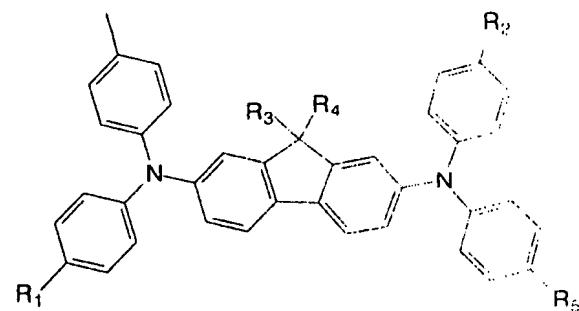
CTM XI



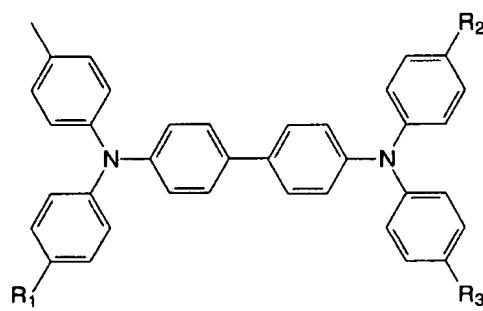
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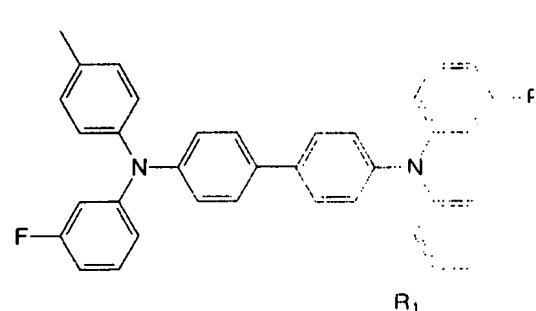
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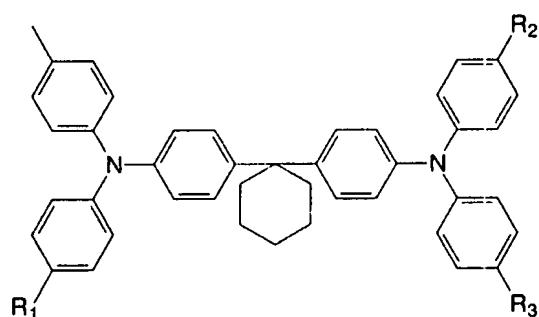
CTM XIV



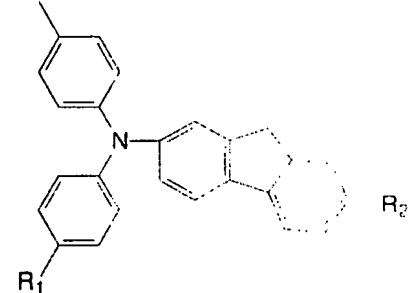
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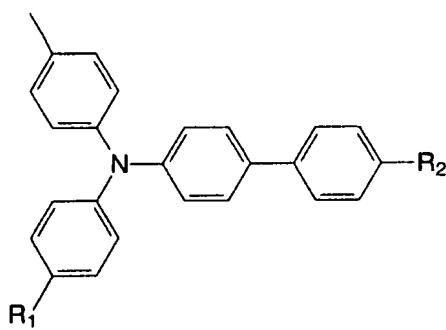
CTM XVI



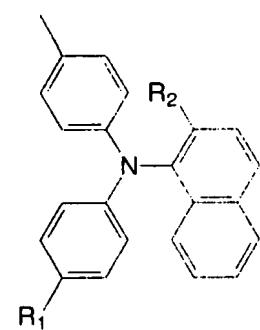
CTM XVII



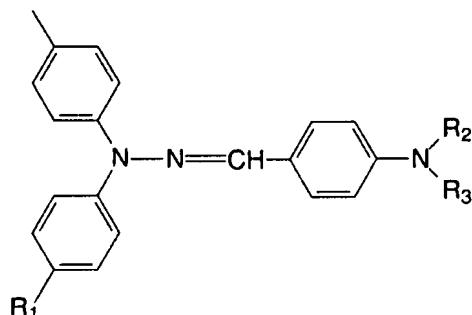
CTM XVIII



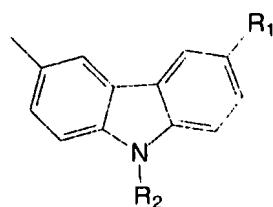
CTM XIX



CTM XX



CTM XXI



CTM XXII

and mixtures thereof, wherein R₁, R₂, R₃, R₄ and R₅ are independently in each CTM structure selected from hydrogen, an alkyl group having 1 to about 6 carbon atoms, or an alkoxy group having 1 to about 6 carbon atoms.

75. (Original) The electrophotographic element of Claim 54 wherein the first charge transport layer is an overcoat layer overlying the charge generation layer.

76. (Original) The electrophotographic element of Claim 54 wherein the condensed reaction product is prepared in a polar solvent medium.

77. (Previously Presented) The electrophotographic element of Claim 76 wherein the polar solvent medium comprises water.

78. (Previously Presented) The electrophotographic element of Claim 77 wherein the polar solvent medium further comprises a water-miscible organic solvent.

79. (Original) The electrophotographic element of Claim 78 wherein said water-miscible organic solvent is selected from the group consisting of methanol, ethanol, isopropyl alcohol, methyl isobutyl ketone, and mixtures thereof.

80. (Original) The electrophotographic element of Claim 54 further comprising a second charge transport layer disposed between said charge generating layer and said first charge transport layer.

81. (Original) The electrophotographic element of Claim 80 wherein said second charge transport layer comprises the charge transport polymer.

82. (Original) The electrophotographic element of Claim 80 wherein said second charge transport layer comprises the condensed reaction residue of the charge transport polymer.

83. (Original) The electrophotographic element of Claim 54 further comprising a barrier layer overlying said electrically conducting layer.

84. (Original) The electrophotographic element of Claim 75 wherein said first charge transport layer has a thickness of about 0.5 micron to about 10 microns.

85. (Original) The electrophotographic element of Claim 75 wherein said first charge transport layer has a thickness of about 1 micron to about 3 microns.

86. (Original) The electrophotographic element of Claim 54 wherein the first charge transport layer has a thickness of up to about 40 microns.

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